

## CLAIMS

What is claimed is:

1. A method for making a termination for a wire rope having a first end and a second end, comprising the steps of
  - 5 a. inserting the first end into a mold, wherein the mold comprises a mold opening;
  - b. placing a crucible with a crucible opening over the mold wherein the mold opening is in fluid communication with the crucible opening;
  - c. placing a separator in the crucible over the crucible opening;
  - d. adding an exothermic metallic material to the crucible;
  - 10 e. placing a baffle on top of the crucible;
  - f. igniting the exothermic metallic material forming a molten material which liquefies the separator in the crucible; and
  - g. flowing the molten material into the mold around the first end forming a termination capable of sustaining a higher break force than the wire rope.
- 15 2. The method of claim 1, wherein the wire rope is an excavation wire rope comprising a diameter between  $\frac{1}{4}$  inches and 7 inches.
3. The method of claim 1, wherein the wire rope is a single strand rope or a multi-strand rope.
4. The method of claim 1, wherein the wire rope is adapted for use with mining equipment.
- 20 5. The method of claim 1, wherein the mold forms the termination into a male or a female connection.

6. The method of claim 5, further comprising the step of inserting the male connection into a socket.
7. The method of claim 6, wherein the socket with an opening comprising a first connector end adapted to engage mining equipment; and a second connector end to engage the termination on the wire rope.  
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8. The method of claim 1 wherein the exothermic metallic material comprises a powdered metallic alloy.
9. The method of claim 8, wherein the powdered metallic alloy comprises an aluminum, aluminum alloy, a copper, a copper alloy, oxide thereof, and combinations thereof.
10. The method of claim 1, further comprising the step of cleaning the first end of the wire rope forming a cleaned end prior to insertion in the mold.  
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11. The method of claim 10, wherein the step of cleaning the wire rope is performed using a torch, using chemicals to remove dirt, mechanical cleaning, and combinations thereof.
12. The method of claim 1, wherein the separator is a low carbon metal plate.  
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13. The method of claim 1 wherein the separator is steel, alloys of steel, and combinations thereof.
14. A method for making a termination for a wire rope having a first end and a second end, comprising the steps of
  - a. inserting the first end into a mold, wherein the mold comprises a mold opening;
  - 20 b. pouring a liquid adhesive into the mold through the mold opening; and
  - c. allowing the liquid adhesive to cure forming a termination capable of sustaining a higher break force than the wire rope.

15. The method of claim 16, wherein the wire rope is an excavation wire rope comprising a diameter between  $\frac{1}{4}$  inches and 7 inches.
16. The method of claim 15, wherein the wire rope is a single strand rope or a multi-strand rope.
- 5 17. The method of claim 15, wherein the wire rope is adapted for use with mining equipment.
18. The method of claim 15, wherein the mold forms the termination into a male or female connection.
19. The method of claim 15, further comprising the step of inserting the male connection into a socket.
- 10 20. The method of claim 19, wherein the socket comprises an equipment connector adapted on a first connector end to engage mining equipment and a second connector end to engage the termination.
21. The method of claim 15, wherein the liquid adhesive is an epoxy.
- 15 22. The method of claim 21, further comprising the step of heating the liquid adhesive to room temperature prior to using the liquid adhesive.
23. The method of claim 15, further comprising the step of cleaning the first end of the wire rope forming a cleaned end prior to insertion in the mold.
24. The method of claim 23, wherein the step of cleaning the wire rope is performed using a torch, using chemicals to remove dirt, mechanical cleaning, and combinations thereof.